LCD KEYBOARD
LCD KLAVIATŪRA

EKB2

User Manual v1.1

Compatible with:
- ESIM264 v7.09.02 and up.
- ESIM364

Main features:
- Alarm system arming & disarming;
- *Stay* mode activation & deactivation;
- System parameter configuration;
- PGM output control;
- System information display on LCD screen;
- Audio indication by built-in mini buzzer;
- Wireless device information display;
- Keyboard partition switch.

EKB2 is an LCD keyboard intended for using with ELDES alarm systems. The system configuration is performed by accessing EKB2 menu and entering the required values. ELDES alarm system allows to connect up to 4 EKB2 keyboards.

NOTE: For complete system configuration & control using EKB2 keyboard, please refer to ELDES alarm system installation manual located at www.eldes.lt/en/download

1. Package Content

1. EKB2 ..... qty. 1
2. User manual ..... qty. 1
3. 5,6kΩ resistor ..... qty. 1
4. Jumper ..... qty. 2
5. Screws ..... qty. 4

2. Technical Specifications

2.1 Electrical & Mechanical Characteristics

Power Supply	12-14V ⎓ 150mA max.
Maximum Keyboard Connection Cable Length	100 m.
Dimensions	133 x 89 x 19 mm
Range of Operating Temperatures	0...+55°C

←	One menu level back / cancel
↑	Menu navigation – up
↓	Menu navigation – down
OK	Confirm (enter) value
0 .. 9	Value typing
P1	Keyboard partition switch / minus symbol for entering negative temp. value
P2	Additional menu / minus symbol for entering negative temp. value

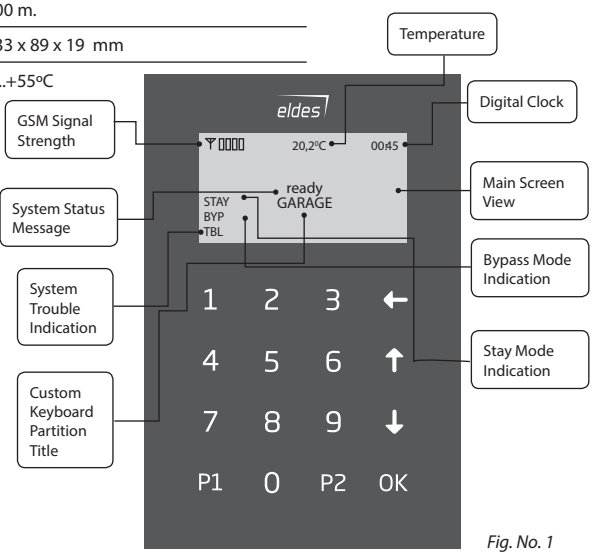

Fig. No. 1

2.2 Keys Functionality

2.3 Connector and Main Unit Functionality

Vin	Positive 12-14V power supply terminal
COM	Negative 12-14V power supply terminal
G	RS485 interface for communication (green wire)
Y	RS485 interface for communication (yellow wire)
COM	Common terminal for Z1
Z1	Security zone terminal
A0	Keyboard address pin
A1	Keyboard address pin
Buzzer	Mini buzzer providing sound signals
Tamper	Tamper-button for EKB2 enclosure status monitoring

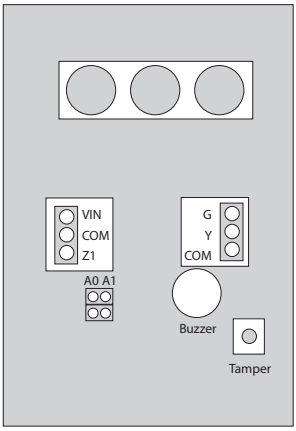

Fig. No. 2

2.4 Keyboard Address

A0 and A1 pins located on the back side of the keyboard are intended to set keyboard address. The keyboard address is set by putting the jumper (-s) on the pins. ELDES alarm system allows to connect up to 4 EKB2 keyboards - each set under different address. Jumper combinations for different keyboard address configuration are indicated in the table below.

Address Configuration

Jumper position	Address
A0 A1	Keyboard 1
A0 A1	Keyboard 2
A0 A1	Keyboard 3
A0 A1	Keyboard 4

The address of each connected keyboard is also indicated in *ELDES Configuration Tool* software.

3. Installation

1. Remove the screw located on the bottom side of the enclosure (see Fig. No. 3)
2. Detach keyboard holder from EKB2 keyboard by gently pulling the-holder towards yourself (see Fig. No. 4).
3. Fix the keyboard holder on the wall using the screws. (see Fig. No. 5)
4. Disconnect ELDES alarm system main power supply and backup battery.
5. Wire up keyboard terminals to ELDES alarm system respectively – **Vin** to **AUX+**, **COM** to **AUX-**, **Y** to **Y**, **G** to **G** (see Fig. No. 6).
6. Z1 and COM terminals must be connected with resistor of 5,6kΩ nominal (see Fig. No. 6). As keyboard zone **Z1** is disabled by default, it can be enabled by SMS, keyboard and *ELDES Configuration Tool*. Keyboard zone **Z1** must be enabled and resistor connected even if the tamper button alone is required.
7. Set the keyboard address by putting the jumper on A0 and A1 pins (see chapter **2.4 Keyboard Address**).
8. Fix the keyboard into the holder.

   ATTENTION! Before fixing the keyboard into the holder please , make sure that the tamper button is properly pressed (see Fig. No. 2).

9. Screw up the bottom side of the enclosure. (see Fig. No. 3)
10. Power up ELDES alarm system.
11. EKB2 keyboard is ready.

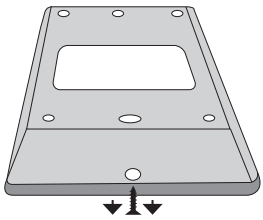

Fig. No. 3

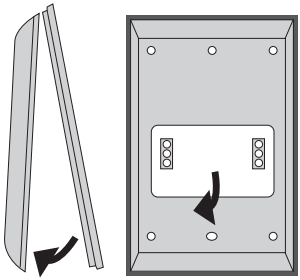

Fig. No. 4

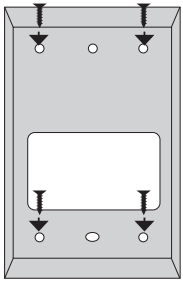

Fig. No. 5

4. EKB2 Zone & Tamper

Keyboard EKB2 has one wired zone **Z1** and one tamper button. By default, the keyboard zone **Z1** is disabled. The keyboard zone can be enabled by SMS, keyboard and *ELDES Configuration Tool*. When **Z1** is enabled, it operates like any other system zone, therefore a sensor can be connected to it. In addition, **Z1** and **COM** terminals must be connected with resistor of 5,6kΩ nominal.
The tamper button is intended for monitoring the enclosure status of EKB2, therefore the system causes alarm if the enclosure is illegally opened. Keyboard zone **Z1** must be enabled and resistor connected even if the tamper button alone is required.

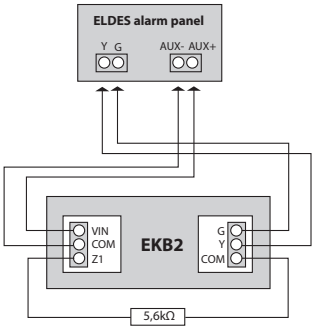

Fig. No. 6

5. Additional Information

Limited Liability

The buyer must agree that the system will reduce the risk of fire, theft, burglary or other dangers but does not guarantee against such events. "ELDES UAB" will not take any responsibility regarding personal or property or revenue loss while using the system. "ELDES UAB" liability according to local laws does not exceed value of the purchased system. "ELDES UAB" is not affiliated with any of the cellular providers therefore is not responsible for the quality of cellular service.

Manufacturer Warranty

The system carries a 24-month warranty by the manufacturer "ELDES UAB". Warranty period starts from the day the system has been purchased by the end user. The warranty is valid only if the system has been used as intended, following all guidelines listed in the manual and within specified operating conditions. Receipt must be kept as a proof of purchase date. The warranty is voided if the system has been exposed to mechanical impact, chemicals, high humidity, fluids, corrosive and hazardous environment or other force majeure factors.

Safety instructions

Please read and follow these safety guidelines in order to maintain safety of operators and people around:

- DO NOT use the system where it can be interfere with other devices and cause any potential danger.
- DO NOT use the system with medical devices.
- DO NOT use the system in hazardous environment.
- DO NOT expose the system to high humidity, chemical environment or mechanical impacts.
- DO NOT attempt to personally repair the system.

Keyboard EKB2 is a device mounted in limited access areas. Any system repairs must be done only by qualified, safety aware personnel.

The system must be powered by 12-14V ⎓ 150mA max power supply and must be approved by LST EN 60950-1 standard and be easily accessible.

Main power must be disconnected before any installation or tuning work starts. The system installation or maintenance must not be done during stormy conditions.

The WEEE (Waste Electrical and Electronic Equipment) marking on this product (see left) or its documentation indicates that the product must not be disposed of together with household waste. To prevent possible harm to human health and/or the environment, the product must be disposed on in an approved and environmentally safe recycling process. For further information on how to dispose of this product correctly, contact the system supplier, or the local authority responsible for waste disposal in your area.

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